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(54) Title: COMPOSITIONS AND METHODS FOR ENZYMATIC DETACHMENT OF BACTERIAL AND FUNGAL BIOFILMS

(57) Abstract: Isolated nucleic acid sequences and amino acid sequences for soluble, β -N-acetylglucosaminidase or active fragments or variants thereof which promote detachment of bacterial cells from a biofilm are provided. An isolated mutant bacteria which forms biofilm colonies which tightly adhere to surface but which are unable to release cells into the medium or spread over the surface is also provided. In addition, methods are described for modulating detachment of bacterial cells from biofilm by mutating soluble, β -N-acetylglucosaminidase or altering its expression or activity are also provided. Also provided are compositions, methods and devices for preventing, inhibiting and treating bacterial infections.